

channel. There is no disclosure or suggestion of smaller particles being allowed to pass through the microfilter but slowed.

Brody et al discloses the filtering of particles from blood such as red blood cells and white blood cells. Red blood cells have a thickness of 2 microns and a diameter of 8 microns whereas white blood cells average 15 microns in diameter. These dimensions are easily and completely filtered from a fluid from passing through the microfilter disclosed by Brody et al. Moreover, in column 5, lines 9-10, Brody discloses "the particles to be separated from the feed liquid remain in the feed flow channel 4." Explicitly, in claim 1, Brody discloses that "the barrier channel has a depth sufficiently small to permit flow of the liquid therethrough but not the particles." It is clear from the disclosure of Brody that particles are not allowed to pass through the barrier as is disclosed and claimed in the present invention.

Unlike conventional filters which seek to completely remove particles from a fluid stream, the invention uses a different mechanism. Larger particles are filtered by the microstructure but smaller particles are only slowed due to their mass and interaction with the surface of the microstructure and the chromatographic effect disclosed in paragraphs 44 and 49 of the specification. The particles are slowed so that the liquid moves faster than the particles and the plasma collecting cavity behind the microstructure fills with plasma before the slower moving particles have passed the barrier.


The trapping of large particles and slowing of smaller particles has distinct advantages over prior filters. Filter cake may not clog the microstructure of the separating device and the size of the microstructure may be larger with greater tolerance since no well-defined cutoffs are necessary as with typical microfilters. The larger size and greater tolerances results in a

microstructure which is easier and cheaper to fabricate.

The secondary references cited by the Examiner do not cure the deficiencies of Brody et al. The prior art does not disclose nor suggest a microstructure trapping larger particles and slowing smaller particles so that the claims are allowable.

A one-month extension of time accompanies this response. If additional fees are due and owing, the Commissioner is authorized to charge Deposit Account 08-2455.

Respectfully submitted,

  
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